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Dated: March 5, 2007

Signature:

*Christine Grace*  
(Christine Grace)

Docket No.: ALEX-P01-112  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re Patent Application of:  
Bowdish et al.

Application No.: 10/583,056

Filed: June 14, 2006

Art Unit: N/A

For: NOVEL ANTI-DC-SIGN ANTIBODIES

Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as

defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-1945, under Order No. ALEX-P01-112. A duplicate copy of this paper is enclosed.

Dated: March 5, 2007

Respectfully submitted,

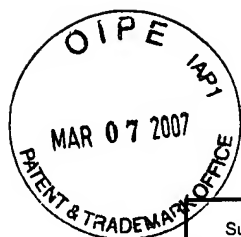
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PTO/SB/08a/b (07-06)

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Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/583,056
				Filing Date	June 14, 2006
				First Named Inventor	Katherine S. Bowdish
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	1	of	2	Attorney Docket Number	ALEX-P01-112

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
AA	US-20030232745-A1		12-18-2003	Olson et al.	
AB	US-7,148,329		12-12-2006	Figdor et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	BA	WO-93/01820-A2		Bristol-Myers Squibb		
	BB	WO-96/23882-A1		Rockefeller University		
	BC	WO-98/41633-A1		Incyte Pharmaceuticals		
	BD	WO-98/02456-A2 & A3		Incyte Pharmaceuticals		
	BE	WO-98/28332-A2 & A3		University of Texas		
	BF	WO-98/49306-A1		Incyte Pharmaceuticals		
	BG	WO-98/55508-A2 & A3		Sagami Chemical		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	Andre et al., "Increased Immune Response Elicited by DNA Vaccination with a Synthetic gp120 Sequence with Optimized Codon Usage," <i>Journal of Virology</i> , 72(2):1497-1503 (1998).	
	CB	Baribaud et al., "Functional and Antigenic Characterization of Human, Rhesus Macaque, Pigtailed Macaque, and Murine DC-SIGN," <i>Journal of Virology</i> , 75(21):10281-10289 (2001).	
	CC	Cohen, Jon, "AIDS Research: Novel Protein Delivers HIV to Target Cells," <i>Science</i> , 287:1567 (2000).	
	CD	Curtis et al., "Sequence and Expression of a Membrane-Associated C-type Lectin that Exhibits CD4-Independent Binding of Human Immunodeficiency Virus Envelope Glycoprotein gp120," <i>Proc. Natl. Acad. Sci. USA</i> , 89:8356-8360 (1992).	
	CE	Engering et al., "The Dendritic Cell-Specific Adhesion Receptor DC-SIGN Internalizes Antigen for Presentation to T Cells," <i>J. of Immunol.</i> , 168:2118-2126 (2000).	
	CF	Feinberg et al., "Structural Basis for Selective Recognition of Oligosaccharides by DC-SIGN and SC-SIGNR," <i>Science</i> , 294:2163-2166 (2001) (with Supplementary Material published electronically on the <i>Science</i> website, 6 pgs.).	
	CG	Geijtenbeek et al., "Identification of DC-SIGN, a Novel Dendritic Cell-Specific ICAM-3 Receptor that Supports Primary Immune Responses," <i>Cell</i> , 100:575-585 (2000).	
	CH	Geijtenbeek et al., "DC-SIGN, a Dendritic Cell-Specific HIV-1-Binding Protein that Enhances trans-Infection of T Cells," <i>Cell</i> , 100:587-597 (2000).	
	CI	Geijtenbeek et al., "Identification of Different Binding Sites in the Dendritic Cell-Specific Receptor DC-SIGN for Intercellular Adhesion Molecule 3 and HIV-1," <i>J. Biol. Chem.</i> , 277(13):11314-11320 (2002).	

Examiner Signature		Date Considered	
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				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	ALEX-P01-112

	CJ	Genbank Accession No. AB015629	
	CK	Gruber et al., "Functional Aspects of Binding of Monoclonal Antibody DCN46 to DC-SIGN on Dendritic Cells," <u>Immunology Letters</u> , 84:103-108 (2002).	
	CL	Hong et al., "Human Immunodeficiency Virus Envelope (gp120) Binding to DC-SIGN and Primary Dendritic Cells Is Carbohydrate Dependent but Does Not Involve 2G12 or Cyanovirin Binding Sites: Implications for Structural Analyses of gp120-DC-SIGN Binding," <u>Journal of Virology</u> , 12855-12865 (2002).	
	CM	"Human CD209: anti-Human CD209 (DC-SIGN) antibody", <u>eBioscience</u> , <a href="http://www.ebioscience.com/ebioscience/specs/antibody_14/14-2099.htm">http://www.ebioscience.com/ebioscience/specs/antibody_14/14-2099.htm</a> , 1/5/2004.	
	CN	Jameson et al., "Expression of DC-SIGN by Dendritic Cells of Intestinal and Genital Mucosae in Humans and Rhesus Macaques," <u>Journal of Virology</u> , 76:1866-1875 (2002).	
	CO	Janeway et al., <u>Immunobiology</u> , (5th ed.), Garland Publishing, New York, p.691 (2001).	
	CP	Knight and Patterson, "Bone Marrow-Derived Dendritic Cells, Infection with Human Immunodeficiency Virus, and Immunopathology," <u>Annu. Rev. Immunol.</u> , 15:593-615 (1997).	
	CQ	Manca et al., "Dendritic Cells are Potent Antigen-Presenting Cells for an Vitro Induction of Primary Human CD4 <sup>+</sup> T-Cell Lines Specific for HIV gp120," <u>Journal of Acquired Immune Deficiency Syndromes</u> , 7:15-23 (1994).	
	CR	Mitchell et al., "A Novel Mechanism of Carbohydrate Recognition by the C-type Lectins DC-SIGN and DC-SIGNR," <u>The Journal of Biological Chemistry</u> , 276:28939-28945 (2001).	
	CS	Product information for DCN46, "Purified Mouse Anti-Human Monoclonal Antibody", BD PharMingen Technical Data Sheet, BD Biosciences Product Information sheet, Catalog Number 551186, 05/01/01.	
	CT	Pohlmann et al., "DC-SIGN Interactions with Human Immunodeficiency Virus Type 1 and 2 and Simian Immunodeficiency Virus," <u>J. of Virology</u> , 75(10):4664-4672 (2001).	
	CU	Soilleux et al., "Cutting Edge: DC-SIGN; a Related Gene, DC-SIGNR; and CD23 Form a Cluster on 19p13 <sup>1,2</sup> ," <u>Immunology</u> , 2937-2942 (2000).	
	CV	Steinman, Ralph M., "DC-SIGN: A Guide to Some Mysteries of Dendritic Cells," <u>Cell</u> , 287:491-494 (2000).	
	CW	Toda et al., "HIV-1-Specific Cell-Mediated Immune Responses Induced by DNA Vaccination were Enhanced by Mannan-Coated Liposomes and Inhibited by Anti-Interferon- $\gamma$ Antibody," <u>Immunology</u> , 92:111-117 (1997).	
	CX	Tsunetsugu-Yokota et al., "Efficient Virus Transmission from Dendritic Cells to CD4 <sup>+</sup> T Cells in Response to Antigen Depends on Close Contact through Adhesion Molecules," <u>Virology</u> , 239:259-268 (1997).	
	CY	Vazeux et al., "Cloning and Characterization of a New Intercellular Adhesion Molecule ICAM-R," <u>Nature</u> , 360:485-488.	
	CZ	Wu et al., "Functional Evaluation of DC-SIGN Monoclonal Antibodies Reveals DC-SIGN Interactions with ICAM-3 Do Not Promote Human Immunodeficiency Virus Type I Transmission," <u>J. Virol.</u> , 76(12):5905-5914 (2002).	
	CA1	Zoetewij and Blauvelt, "HIV-Dendritic Cell Interactions Promote Efficient Viral Infection of T Cells," <u>J. Biomed. Sci.</u> , 5:253-259 (1998).	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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